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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/598,538	06/21/2000	Carl W. Shonk	60,314-098	7679

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EXAMINER

TRAN, DALENA

ART UNIT	PAPER NUMBER
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3661

DATE MAILED: 03/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/598,538

Applicant(s)

SHONK, CARL W.

Examiner

Dalena Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18,21 and 22 is/are allowed.
- 6) ☒ Claim(s) 1-17,19 and 23-27 is/are rejected.
- 7) ☒ Claim(s) 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Notice to Applicant(s)

1. This office action is responsive to the amendment filed on 1/9/04. As per request, claims 1,5, 9,12,14,18, and 21-22 have been amended, claims 26-30 have been added. Thus, claims 1-30 are pending.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3,5-7,14-16,19,23, and 25-26, are rejected under 35 U.S.C.103(a) as being unpatentable over Xu et al. (6,401,027) in view of Holland (6,321,091).

As per claims 1,5-6, and 14, Xu et al. disclose a method for transmitting the location of a vehicle to a location remote from the vehicle comprising the steps: determining a street attribute of the vehicle relative to a road network defined as a first location, and determining a change in the street attribute of the vehicle relative to a road network defined as a second location (see column 4, lines 15-37; column 4, lines 49-56; and column 7, line 54 to column 8, line 11), and automatically communicating the street attribute of the vehicle to the remote location based upon change in location (see the abstract, first 6 lines; column 6, lines 34-44; column 8, lines 12-23; column 11, lines 13-46; and column 11, line 61 to column 12, line 25). Xu et al. do not disclose communicating the street attribute of the vehicle at first and second frequency. However, Holland discloses communicating the first and second locations of the vehicle to the remote

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location at first and second frequency, and second frequency different from first frequency (see columns 2-4, lines 21-17; columns 4-5, lines 49-16; and columns 12-14, lines 15-3). It is obvious that a third location can be determined between a first and second location, and when communicating the first and second location to the remote location, the transmission of the third location should be kept low by suppressing the transmitting when effective no relevant information can be gathered. Also, Holland discloses in column 2, lines 32-35, that “The rate at which the locator device periodically transmits its positional data varies according to the rate the locator device changes its physical position”, and in column 4, line 66 to column 5, line 10, “the tracking distances traveled by the person or object possessing the locator device by maintaining a history of data locations.... This history of data locations is used for determining the rate of change of positional data”; and column 5, lines 5-7 “the locator device periodically transmits position data to the server computer at a variable rate dependent upon the relative movement of the locator device”. Therefore, it is obvious that the rate of change of positional data of the person or object, is determined the interval frequency. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Xu et al. by combining communicating the first and second locations of the vehicle to the remote location at first and second frequency, and second frequency different from first frequency for accurately tracking and monitoring vehicle position and differentiate transmit time when vehicle from position to position.

As per claims 2-3, and 15-16, Xu et al. disclose the location of the vehicle is communicated with reference to the road network, and the road network is a map database (see column 7, lines 20-30).

As per claim 7, Xu et al. disclose the first location is a first street, the second location is a second street (see column 10, lines 51-54).

As per claim 19, Holland discloses first and second frequencies are based on a distance traveled by the vehicle (see column 2, lines 20-40; and column 4, line 66 to column 5, line 16).

As per claims 23, and 25, Holland discloses the frequencies define a data transmission interval (see columns 2-3, lines 21-20; and columns 12-13, lines 61-21).

As per claim 26, Xu et al. disclose the street attribute is one of street name, street address and street segment, street intersection (see column 8, lines 40-65).

4. Claim 8, is rejected under 35 U.S.C.103(a) as being unpatentable over Xu et al. (6,401,027), and Holland (6,321,091) as applied to claim 1 above, and further in view of Novik (6,339,745).

As per claim 8, Xu et al., and Holland do not disclose the first location is a first street address, and the second location is a second street address. However, Novik discloses the first location is a first street, the second location is a second street, and the first location is a first street address, and the second location is a second street address (see columns 9-10, lines 45-37). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Xu et al., and Holland by combining the first location is a first street address, and the second location is a second street address for accurately taking into account additional specific road in which the current location of the vehicle is located, therefore the remote location can accurate detect vehicle at any specific time and locations.

5. Claims 9-13, and 24, are rejected under 35 U.S.C.103(a) as being unpatentable over Zijderhand (5,598,167) in view of Adolph (6,356,836), and Holland (6,321,091).

As per claims 9, and 12-13, Zijderhand discloses an apparatus for a navigation system for transmitting the location of a vehicle to a location remote from the vehicle, comprising: at least one position determining device for providing a vehicle location signal, a processor interconnected to at least one positioning device and database for determining the location of the vehicle relative to map, and a transmitter for producing a transmission signal to the remote location having the location of the vehicle (see columns 2-4, lines 49-15). Zijderhand does not disclose a trigger device. However, Adolph discloses a trigger device for triggering transmission signal, wherein triggering device determines a street attribute of the vehicle relative to road network defines as a first location and determines a change in the street attribute of the vehicle relative to road network defines as a second location, and trigger device automatically commands transmitter to produce transmission signal based upon the change in location (see columns 10-11, lines 65-52; and columns 13-14, lines 40-2). It is obvious that a third location can be determined between a first and second location, and when trigger device communicates the first and second location to the remote location, the communication of the third location should be kept low by suppressing the transmitting when effective no relevant information can be gathered. Also, Adolph discloses in column 11, lines 19-24, that "the data transmission can take place during the trip, or when the vehicle stops....Data transmission can be triggered automatically after a given period, or coverage of a certain distance, depending on the update value of the data", and in column 11, lines 40-42, "this update value is offered to the central computer together with a geographical specification"; and in column 13, lines 41-65, the time of motion of mobile unit can be transmitted, therefore, it is obvious that the transmission trigger based on location, distance traveled. Zijderhand does not disclose communicating the locations at first and second

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frequency. However, Holland discloses communicating the first and second locations of the vehicle to the remote location at first and second frequency, and second frequency different from first frequency (see columns 2-4, lines 21-17; columns 4-5, lines 49-16; and columns 12-14, lines 15-3). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Zijderhand by combining a trigger device for triggering transmission signal, wherein triggering device determines a street attribute of the vehicle relative to road network defines as a first location and determines a change in the street attribute of the vehicle relative to road network defines as a second location, and trigger device automatically commands transmitter to produce transmission signal based upon the change in location for monitoring and transmitting the vehicle position to the remote location to determine real time a position of the vehicle relative to geographic data used by the navigation system.

As per claim 10, Zijderhand discloses the location of the vehicle is communicated with reference to the road network (see column 3, lines 3-47).

As per claim 11, Zijderhand discloses the location of the vehicle is determined by map-matching (see column 5, lines 57-58).

As per claim 24, Adolph discloses interval frequencies define a data transmission interval (see column 11, lines 10-52).

6. Claims 4, and 17, are rejected under 35 U.S.C.103(a) as being unpatentable over Xu et al. (6,401,027), and Holland (6,321,091) as applied to claim 16 above, and further in view of Zijderhand (5,598,167).

As per claims 4, and 17, Xu et al., and Holland, do not disclose the location of the vehicle is determined by map-matching. However, Zijderhand discloses the location of the vehicle is

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determined by map-matching (see column 5, lines 57-58). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Xu et al., and Holland by combining the location of the vehicle is determined by map-matching to provide information about the actual location of a vehicle as it moves over streets.

7. Claim 27, is rejected under 35 U.S.C.103(a) as being unpatentable over Zijderhand (5,598,167), Adolph (6,356,836), and Holland (6,321,091) as applied to claim 9 above, and further in view of Xu et al. (6,401,027).

As per claim 27, Zijderhand, Adolph, and Holland, do not disclose the street attribute is one of street name, street address and street segment, street intersection. However, Xu et al. disclose the street attribute is one of street name, street address and street segment, street intersection (see column 8, lines 40-65). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Zijderhand, Adolph, and Holland by combining the street attribute is one of street name, street address and street segment, street intersection for determining a specific position of the vehicle in the road network.

8. Claim 20 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 18,21-22, and 28-30, are allowable.

Remarks

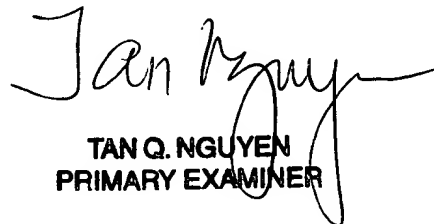
9. Applicant's argument filed on 1/9/04 has been fully considered, upon updated search, the new ground of rejection has been set forth as above.

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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dalena Tran whose telephone number is 703-308-8223. The examiner can normally be reached on M-F (7:30 AM-5:30 PM), off every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Cuchlinski can be reached on 703-308-3873. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7687 for regular communications and 703-305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.


TAN Q. NGUYEN
PRIMARY EXAMINER

/dt
March 18, 2004